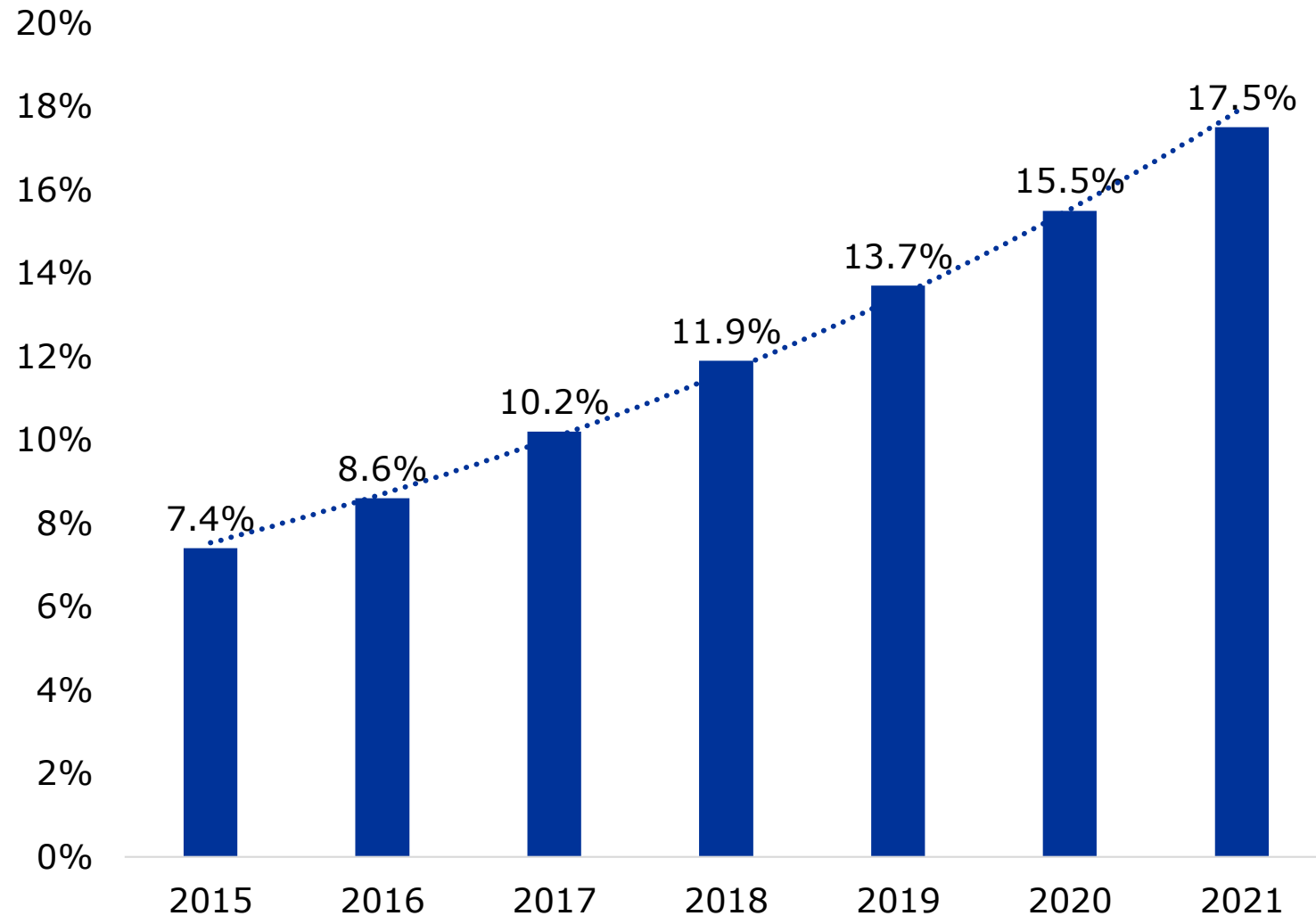


# How are consumers using collection points? Evidence from Brussels

Heleen Buldeo Rai

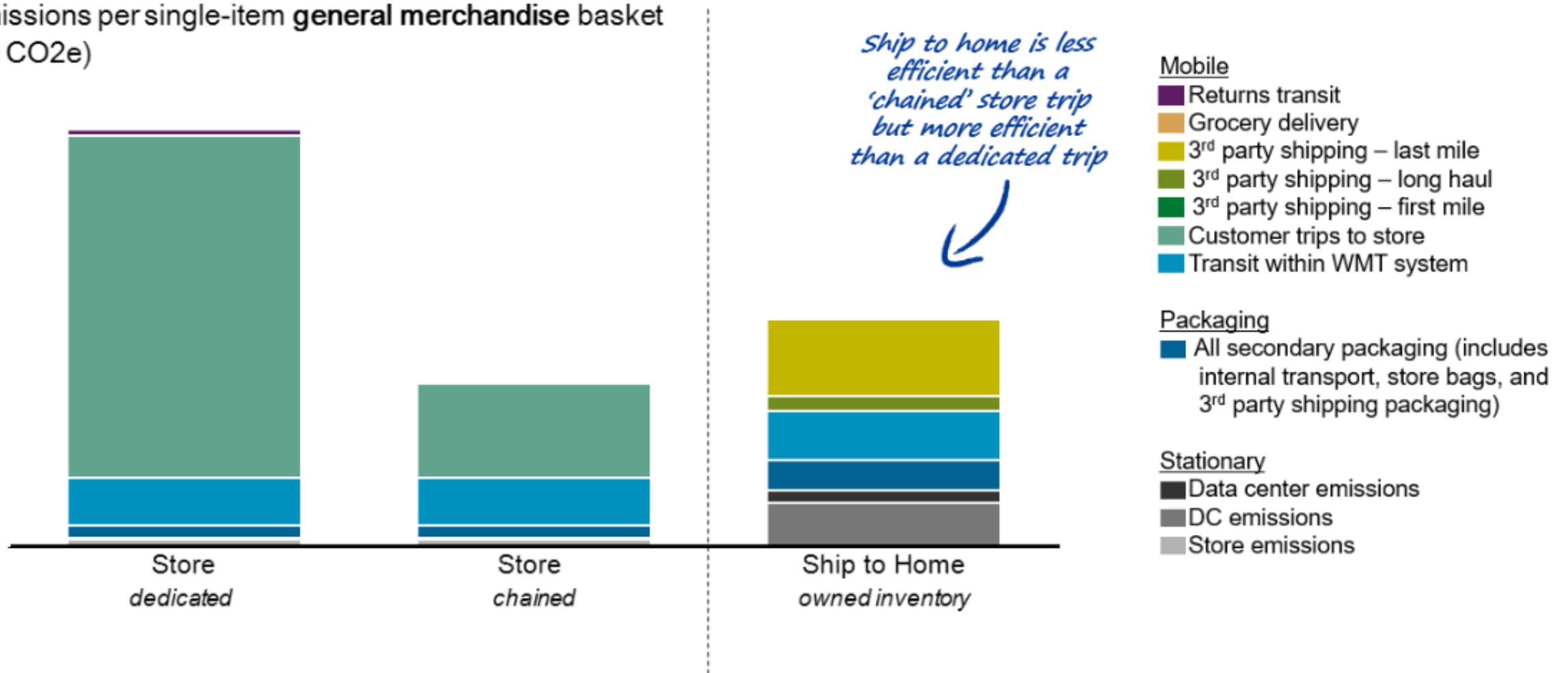
Vrije Universiteit Brussel  
Research group MOBI

# Share of total global e-retail sales

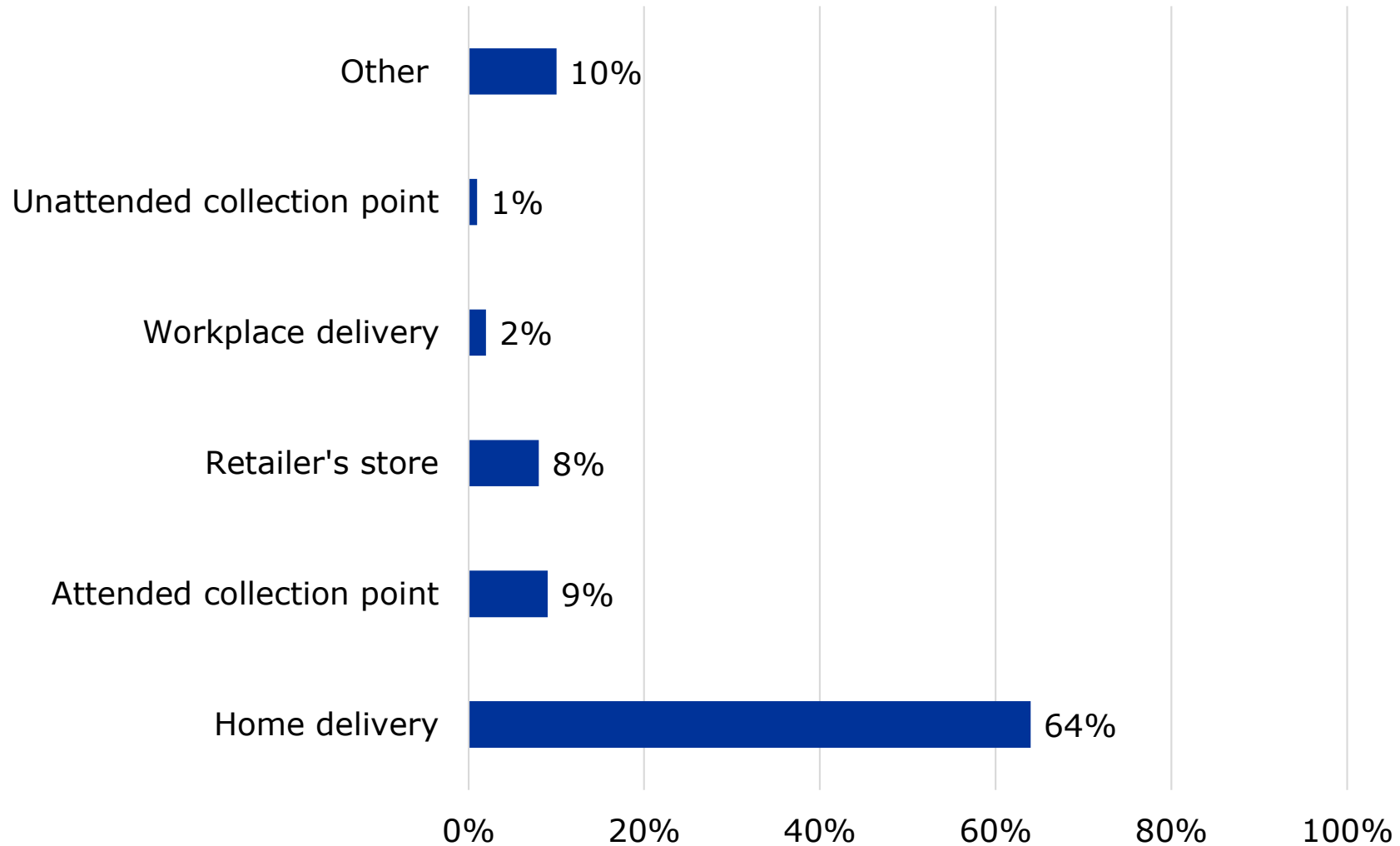


# Environmental impact of deliveries

Emissions per single-item general merchandise basket (kg CO2e)



# Consumers' delivery preferences



# Environmental impact of deliveries



42 unattended  
collection  
points



646 attended  
collection  
points

## Advantages

## Sources

### For logistics service providers

---

More consolidation

(Deutsch & Golany 2018; Yuen et al. 2018; Kedia et al. 2017; Brown & Guiffrida 2014)

More successful deliveries

(Morganti, Seidel, et al. 2014; Deutsch & Golany 2018; Yuen et al. 2018; Kedia et al. 2017; Zhang et al. 2018; Nabot & Omar 2016; Cardenas, Dewulf, et al. 2017; Morganti, Dablanc, et al. 2014)

More efficient delivery rounds

(Morganti, Seidel, et al. 2014; McLeod et al. 2006; Giuffrida et al. 2016; Cardenas, Dewulf, et al. 2017)

Less vehicle-kilometres per delivery

(Xiao et al. 2017; Moroz & Polkowski 2016; Carotenuto et al. 2018; Kedia et al. 2017; Durand & Gonzalez-Feliu 2012; Cardenas, Dewulf, et al. 2017; Morganti, Dablanc, et al. 2014)

Less transport-time per delivery

(Xiao et al. 2017; Zhang et al. 2018)

Less fuel consumption per delivery

(Moroz & Polkowski 2016)

Less operational costs per delivery

(Morganti, Seidel, et al. 2014; Deutsch & Golany 2018; Carotenuto et al. 2018)

### For consumers

---

More flexibility

(Morganti, Seidel, et al. 2014; Xiao et al. 2017; Carotenuto et al. 2018; Cardenas, Borbon-Galvez, et al. 2017)

More convenience

(Deutsch & Golany 2018; Edwards, McKinnon, Cherrett, et al. 2010; Yuen et al. 2018)

Less waiting time

(Yuen et al. 2018)

Less risk of theft due to unattended delivery

(Kedia et al. 2017; Nabot & Omar 2016)

More local pick-up (compared to depots)

(McLeod et al. 2006)

### For collection points

---

More footfall

(Weltevreden 2008)

More revenues

(Weltevreden 2008; Carotenuto et al. 2018)

### For society

---

Less emissions

(Iwan et al. 2016; Moroz & Polkowski 2016; Carotenuto et al. 2018; Yuen et al. 2018; Lemke et al. 2016)

Less congestion

(Moroz & Polkowski 2016; Yuen et al. 2018)

Less noise

(Moroz & Polkowski 2016)

Less sidewalk parking

(Yuen et al. 2018)

# Research objective



To identify how consumers use collection points and how they travel to and from these points.

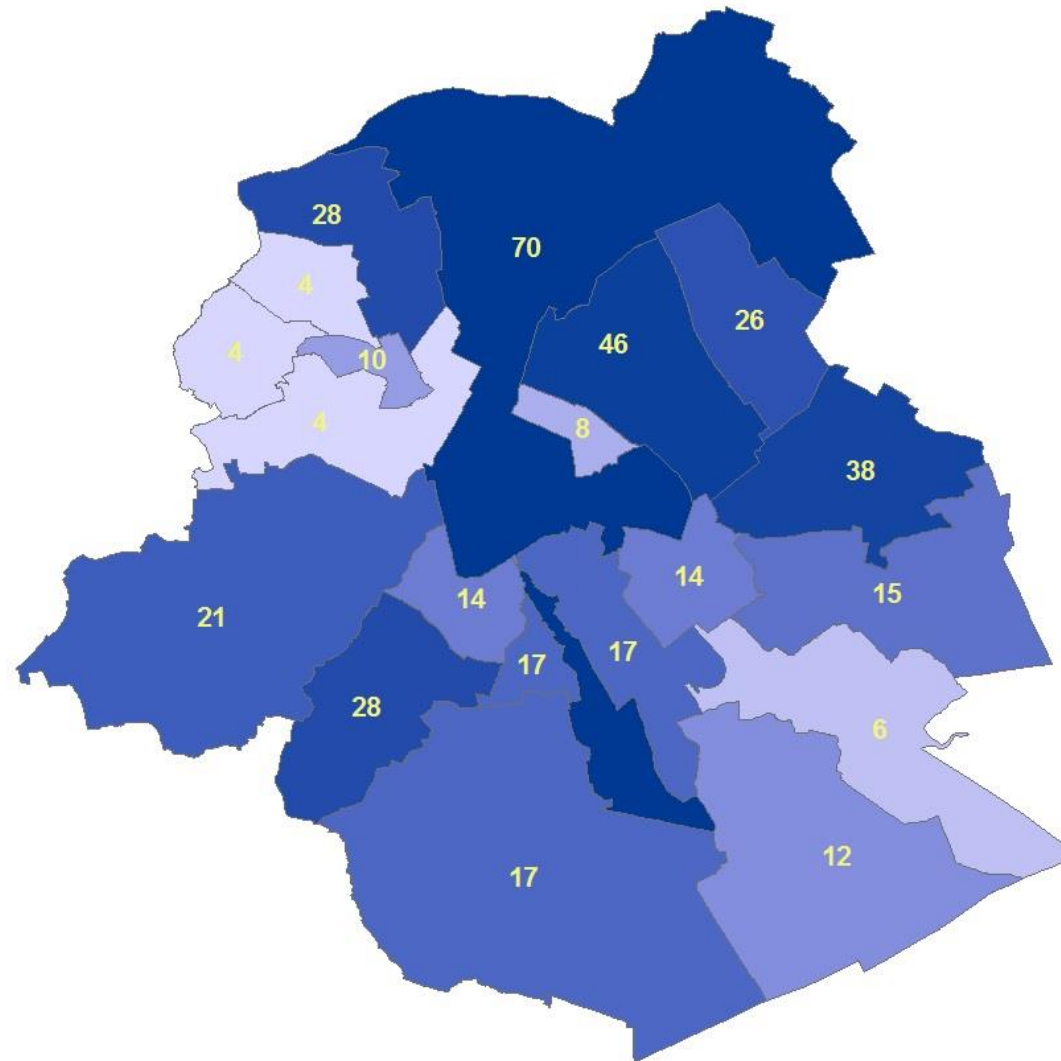
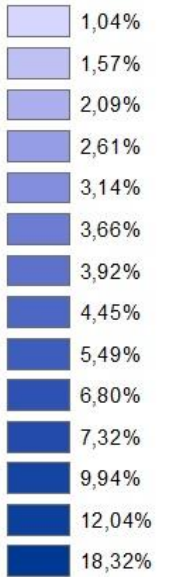
# Street intercept surveys

	Bookshop / press	Florist shop	Local supermarket	Computer / household appliances	Tobacco shop	Gas station	Photoshop	Musical instrument shop	Total
Monday	43	0	6	8	0	0	0	0	57
Tuesday	11	12	12	8	0	0	6	0	49
Wednesday	0	0	25	14	7	0	6	0	52
Thursday	16	11	17	0	0	0	0	7	51
Friday	18	9	25	0	0	0	5	0	57
Saturday	27	0	6	8	10	7	0	10	68
Sunday	8	17	12	14	0	0	0	0	51
	123	49	103	52	17	7	17	17	<b>385</b>



# Street intercept surveys

Respondents as  
Percent of Total



# Street intercept surveys

*First part*

survey context

*Second part*

collection point use:

- ▶ nature of collection
- ▶ order information
- ▶ collection point satisfaction
- ▶ travel information

*Third part*

online purchase behaviour

*Fourth part*

socio-demographics

# Street intercept surveys

	Frequency	Percentage
<b>Age</b>		
Younger than 24	72	18,7%
Between 25 and 34	106	27,5%
Between 35 and 44	99	25,7%
Between 45 and 54	72	18,7%
Older than 55	36	9,4%
<b>Gender</b>		
Male	190	49,4%
Female	195	50,6%
<b>Marital status</b>		
Single	106	27,5%
Cohabiting	95	24,7%
Married	139	36,1%
Divorced	30	7,8%
Widow(er)	15	3,9%
<b>Professional status</b>		
Employee, full-time	214	55,6%
Employee, part-time	45	11,7%
Independent	26	6,8%
Student	73	19%
Retired	24	6,2%
Unemployed	3	0,8%
<b>Language</b>		
Dutch-speaking	181	47%
French-speaking	204	53%

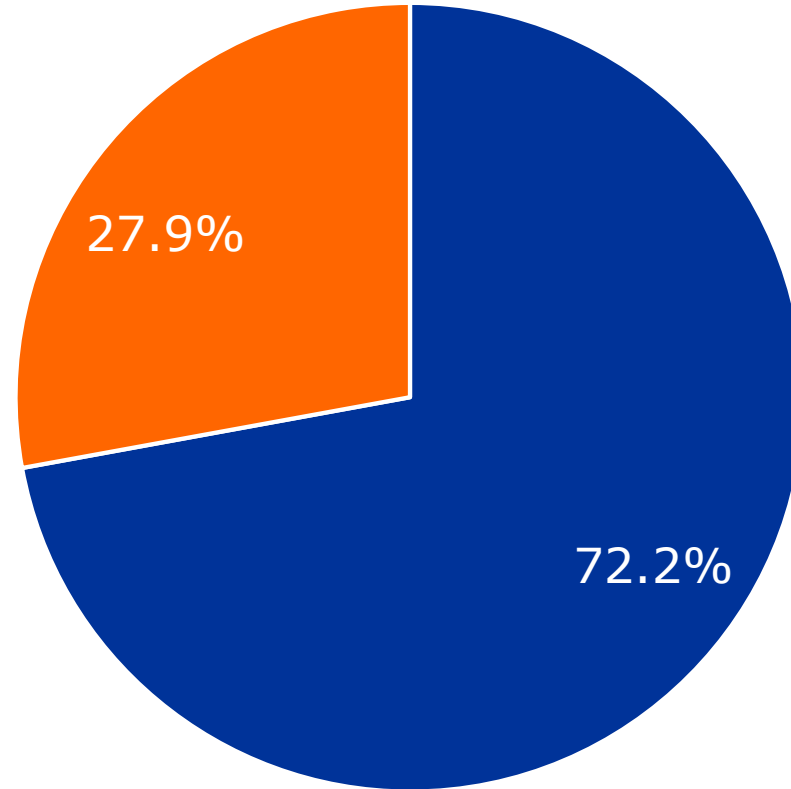
```
graph LR; A[Collection point use] --> B[Collection point users]; B --> C[Collection trips];
```

Collection  
point use

Collection  
point users

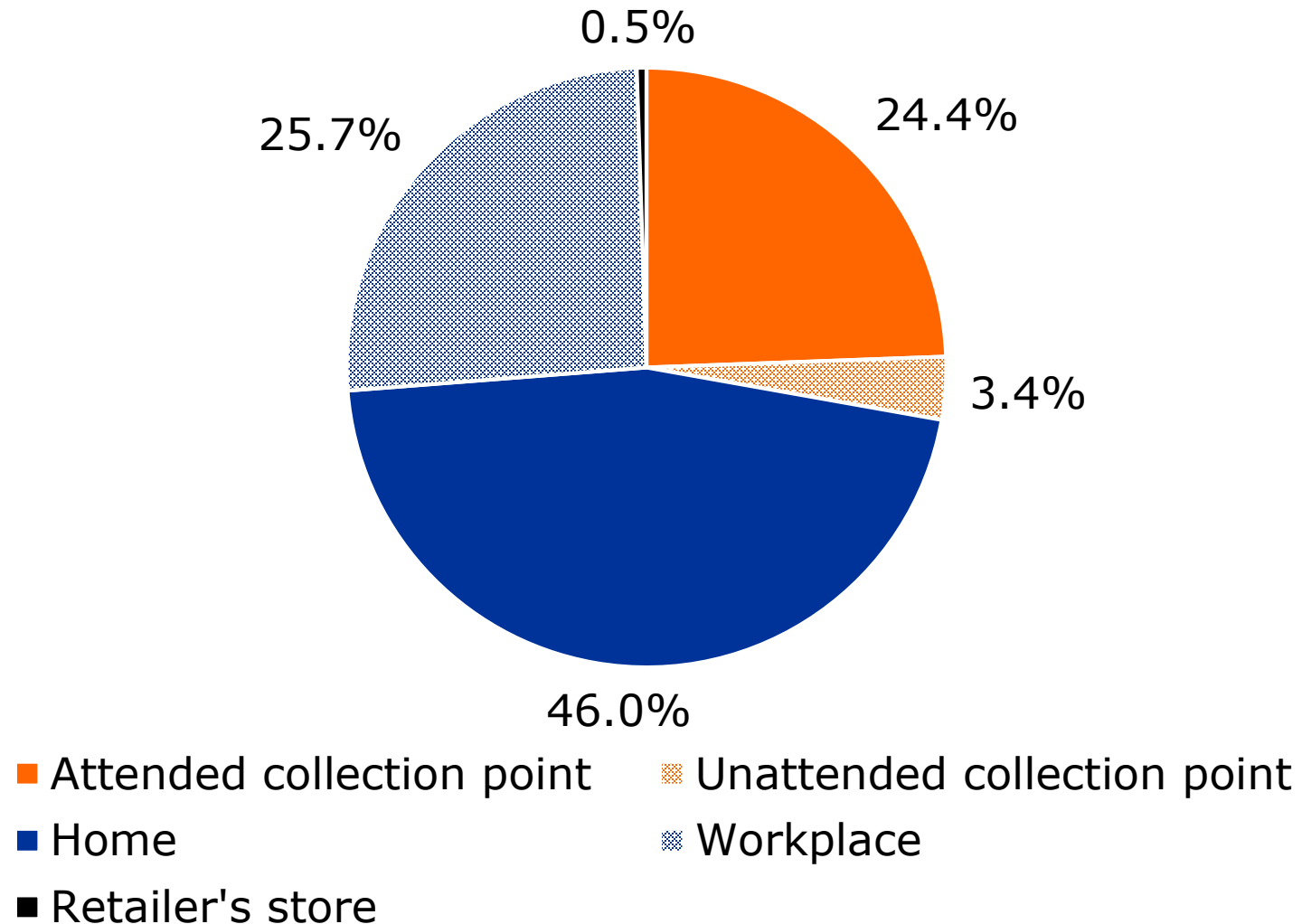
Collection trips

# Collection point use

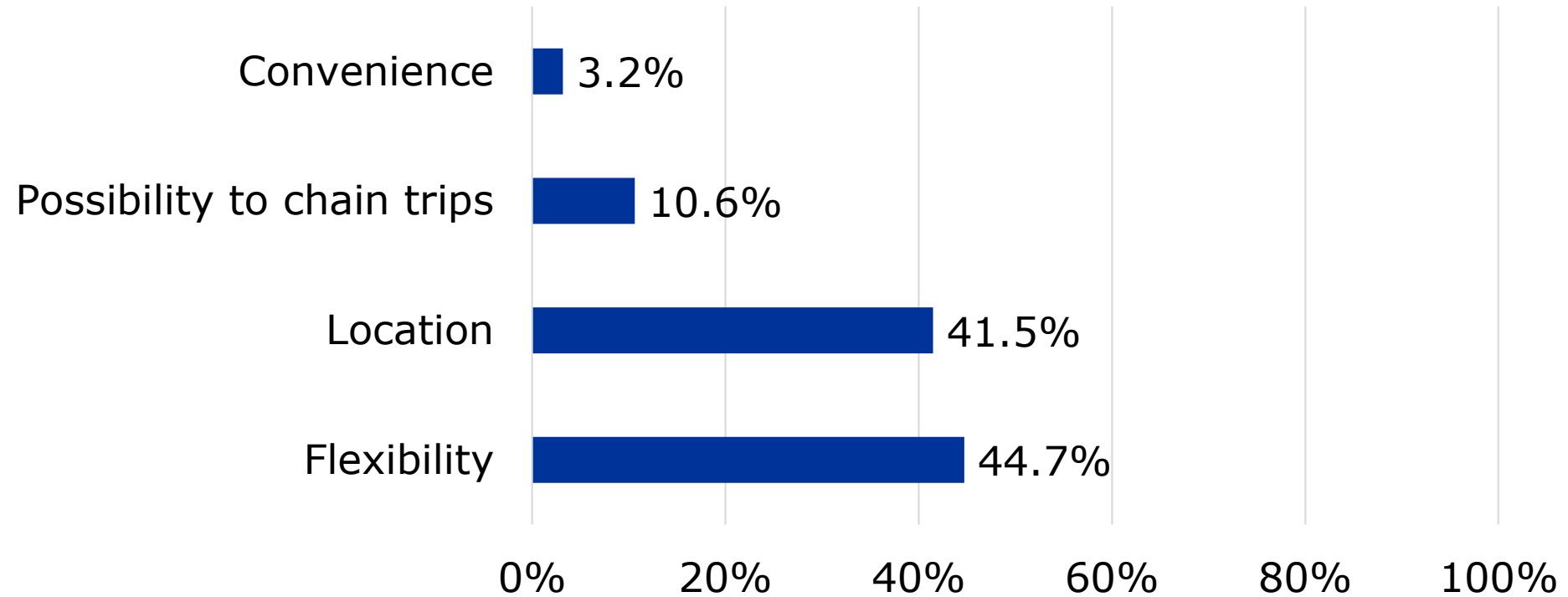


■ Home delivery failure    ■ Collection point delivery

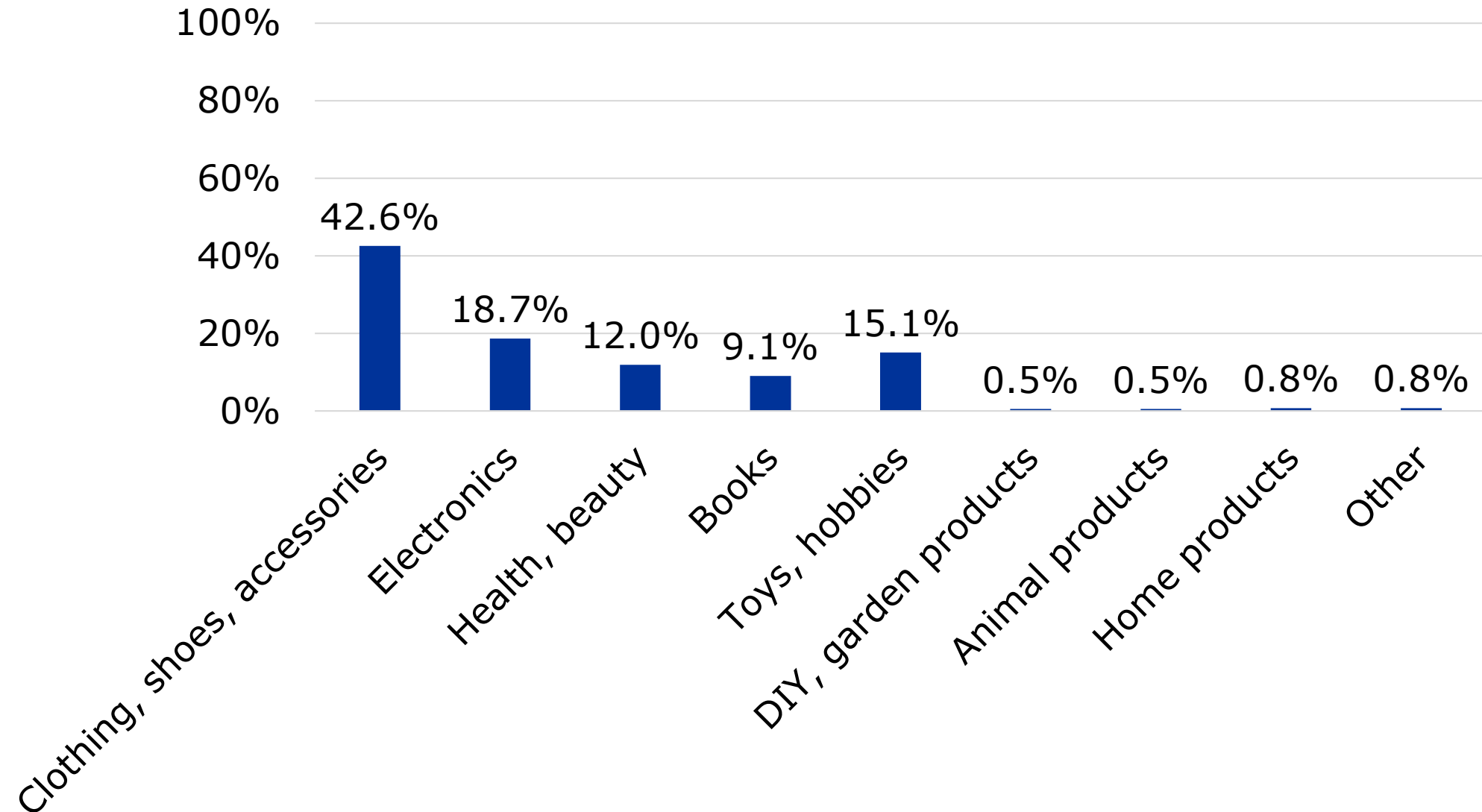
# Collection point use



# Collection point use



# Collection point use



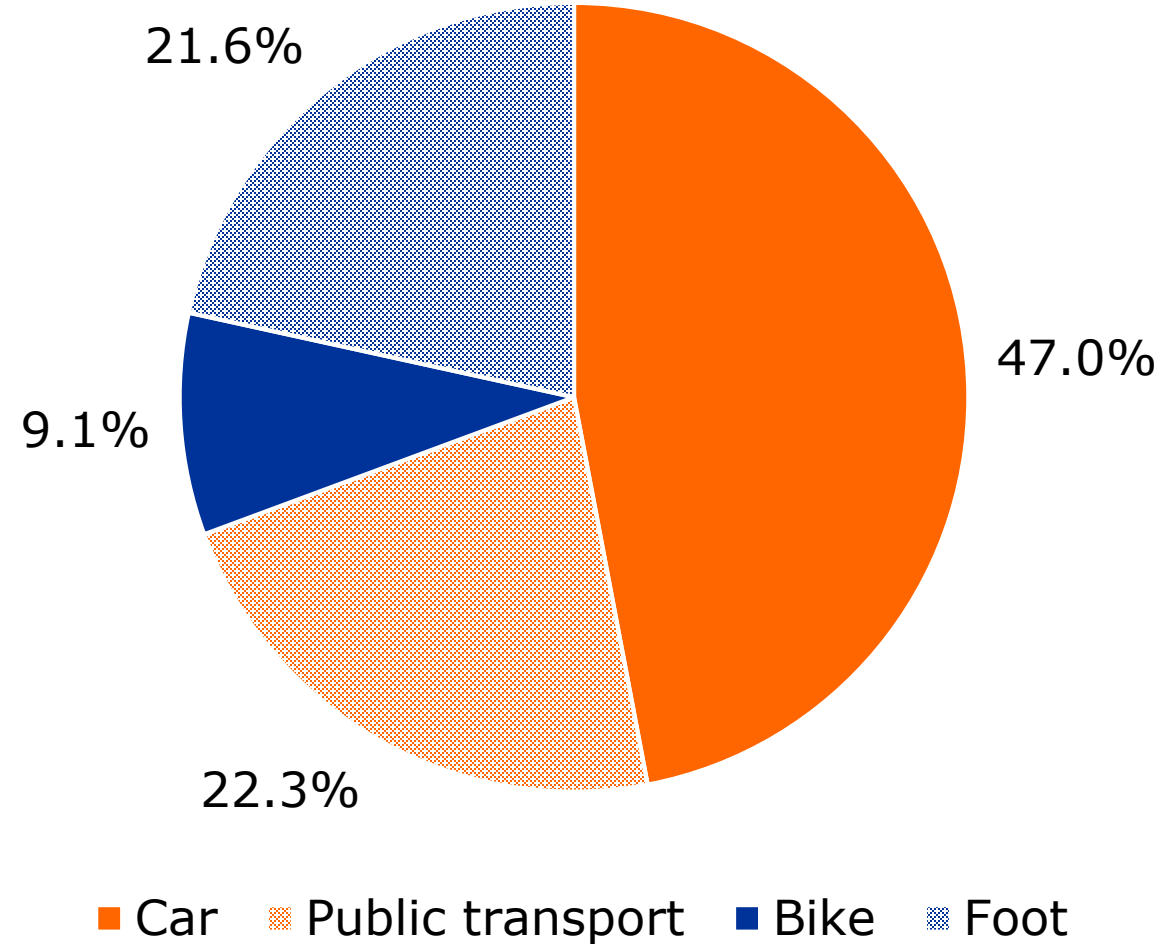


# Collection point users

Consumers that prefer collection points...

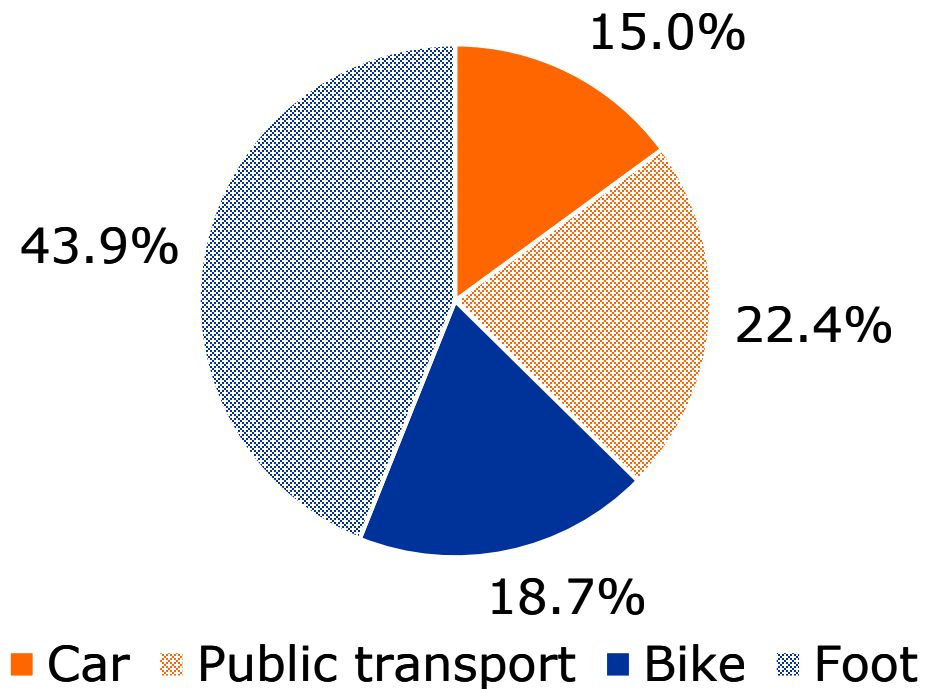
- ▶ are younger, student and single.
- ▶ their travel time is shorter.
- ▶ they travel on foot or by bike.
- ▶ they are satisfied with their collection point.
- ▶ they shop more frequently online.
- ▶ they consider their online purchases to be replacing their offline purchases.

# Collection trips

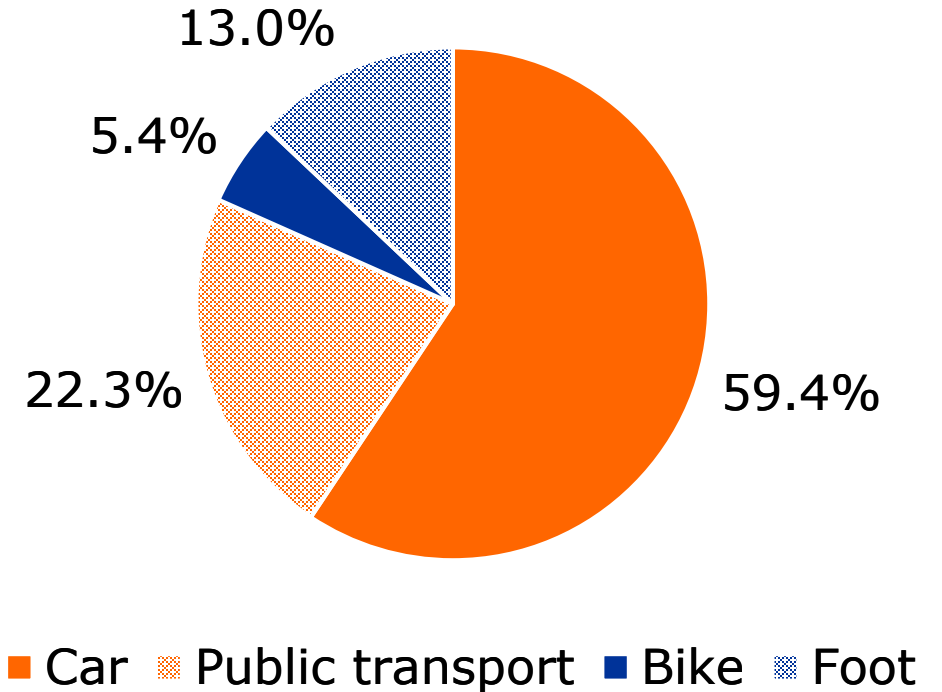


# Collection trips

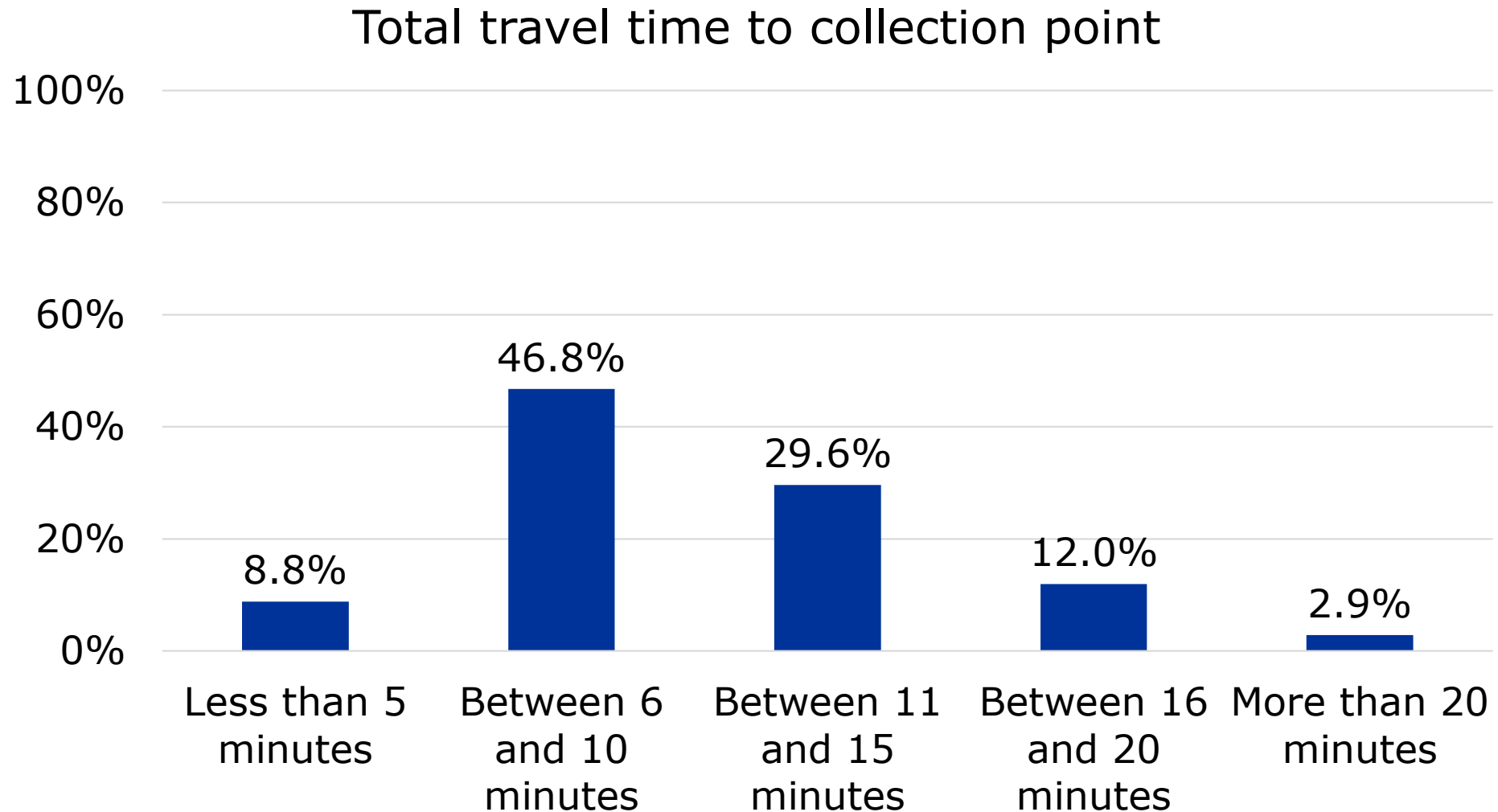
Collection point delivery  
(n=107)



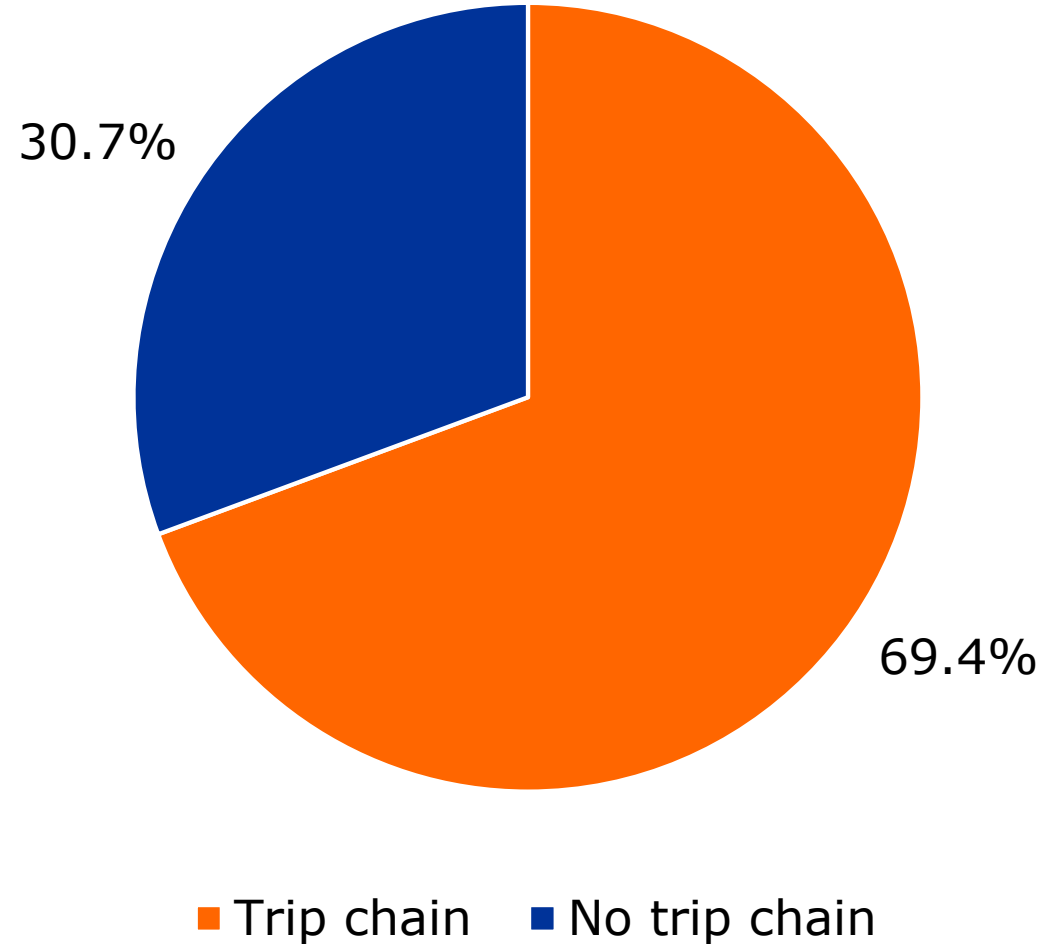
Home delivery failure  
(n=278)



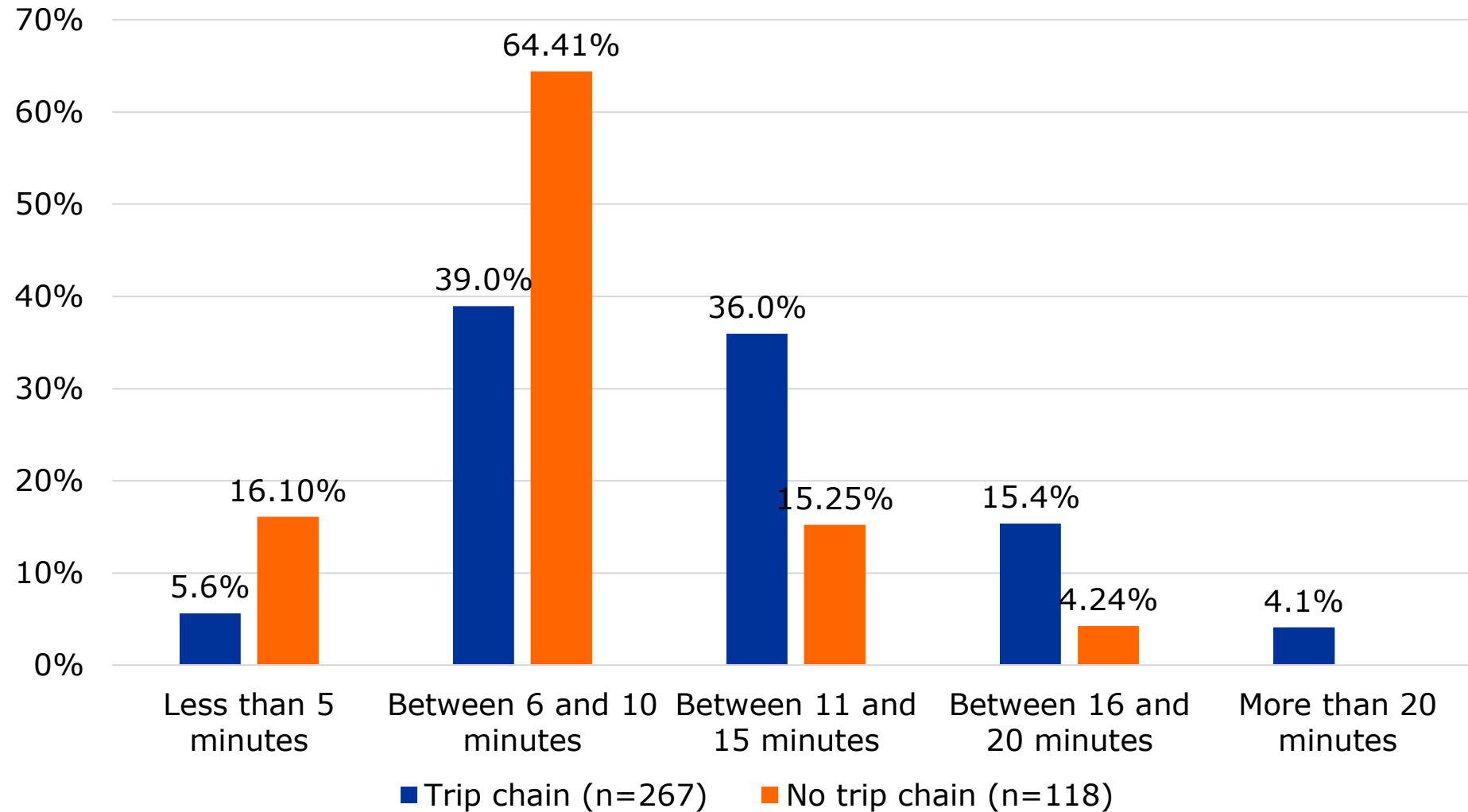
# Collection trips



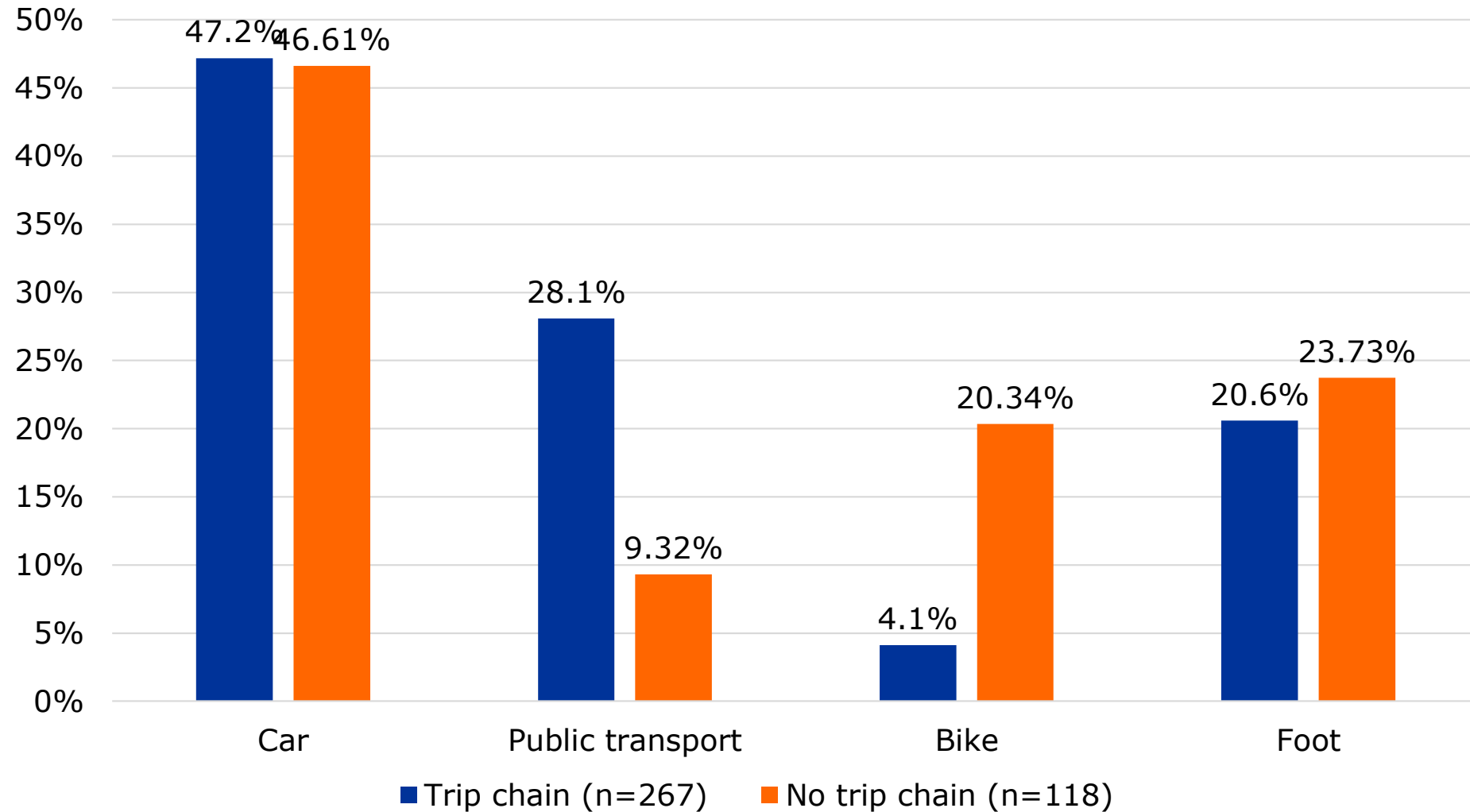
# Collection trips



# Collection trips



# Collection trips



# Collection trips

Trip chain activities	N	Percentage	Percentage of cases
Shopping for groceries or other necessities	87	26,6%	32,6%
Bringing or picking up someone	43	13,1%	16,1%
Visiting friends/family	38	11,6%	14,2%
Social, cultural or religious activities	28	8,6%	10,5%
School/university	24	7,3%	9,0%
Going to a bar/restaurant	22	6,7%	8,2%
Taking a stroll or a ride for leisure	19	5,8%	7,1%
Doing sports	19	5,8%	7,1%
Services	17	5,2%	6,4%
Leisure shopping	17	5,2%	6,4%
Going out/partying	6	1,8%	2,2%
Going to my workplace	5	1,5%	1,9%
Work-related purposes	2	0,6%	0,7%
Total	327	100,0%	122,5%



# Conclusion

- ▶ Identification of collection point user-profiles and **non-user profiles**.
- ▶ Rejection of assumption that consumers **primarily walk** to collection points and chain collection point trips with **work-related trips**.
- ▶ Confirmation of consumers' delivery location **preference** importance.
- ▶ Future research: testing in and comparing with other contexts.

# Let's stay in touch



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